MINISTRY OF NATURAL RESOURCES

Southern Ontario

CO-ORDINATED PROGRAM STRATEGY

Approved

Ontario

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CO-ORDINATED PROGRAM STRATEGY

Ontario

Ministry of Natural Resources

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Minister

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Deputy Minister

April 1982

PLANNING AND ADMINISTRATIVE REGIONS IN ONTARIO

PLANNING REGIONS	ADMINISTRATIVE REGIONS
NORTHWESTERN	1 NORTHWESTERN 2 NORTH CENTRAL
NORTHEASTERN	3 NORTHERN 4 NORTHEASTERN
SOUTHERN	5 ALGONQUIN 6 EASTERN 7 CENTRAL 8 SOUTHWESTERN

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I INTRODUCTION

The *Co-ordinated Program Strategy* identifies what the ministry intends to achieve in southern Ontario and how it plans to do this.

The *Strategy* is consistent with the Ontario government's commitment to economic and social development and to environmental protection. It provides direction for the preparation of more detailed land use strategies for each of the ministry's administrative districts in southern Ontario. District land use strategies will identify what the ministry intends to achieve locally through its own activities and through co-operative efforts with other agencies, municipalities and landowners.

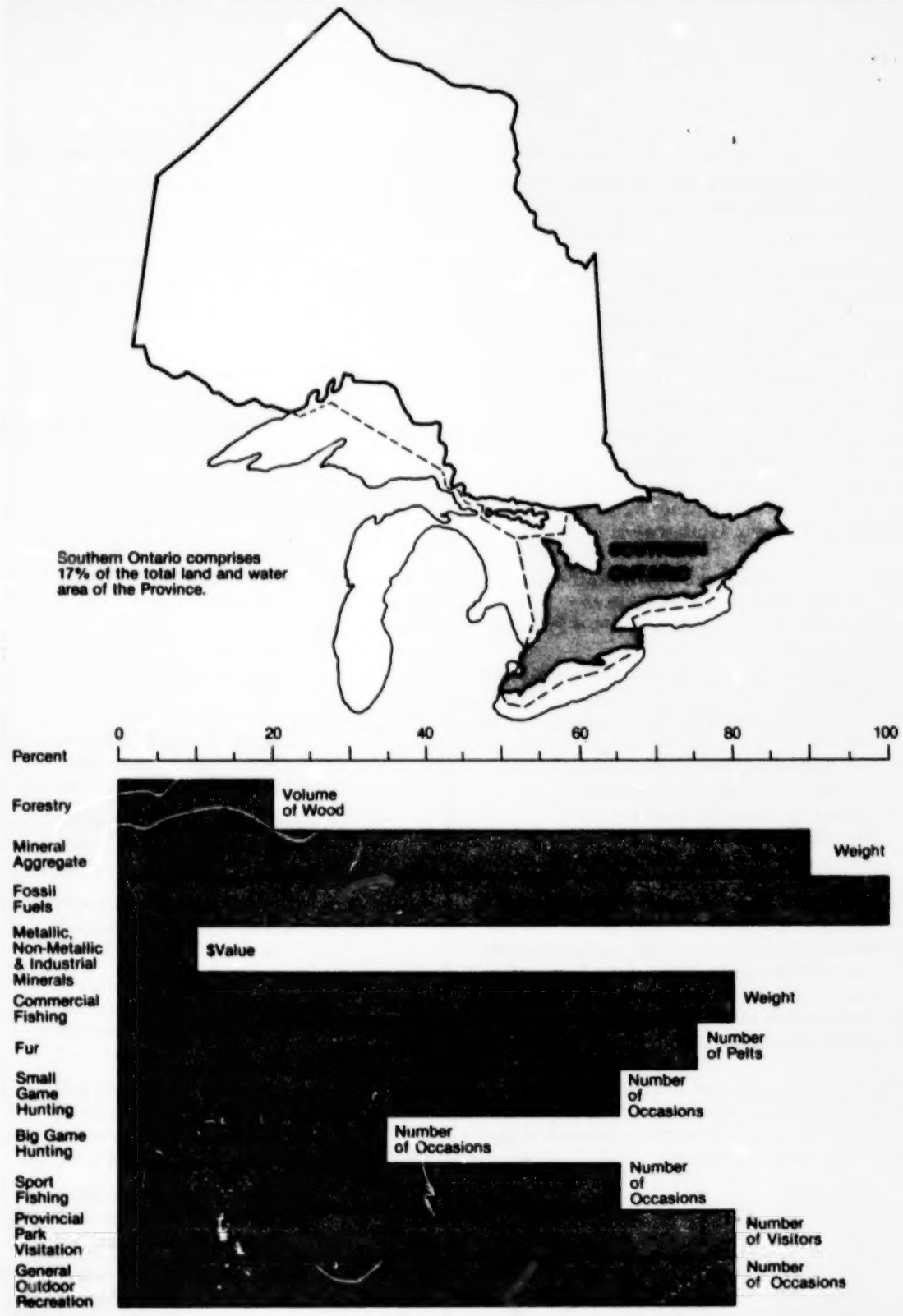
This report was preceded by five others:

- *Background Information to the Development of a Co-ordinated Program Strategy;*
- *Proposed Policies, Co-ordinated Program Strategy;*
- *Public Responses to the Proposed Policies Report;*
- *Co-ordinated Program Strategy for the Ministry of Natural Resources in Southern Ontario, January, 1981* (for discussion); and
- *Summary of Public Responses.*

The *Proposed Policies* report was circulated to government agencies, municipalities, special interest groups, conservation authorities and southern Ontario Members of the Legislative Assembly. The responses were considered in the preparation of the 1981 draft *Co-ordinated Program Strategy*.

The draft *Co-ordinated Program Strategy* received a similar circulation. The responses were summarized and were considered in the preparation of this report.

FIGURE 1 PRESENT CONTRIBUTION OF SOUTHERN ONTARIO TO PROVINCIAL NATURAL RESOURCES PROGRAMS



II PERSPECTIVE

Southern Ontario comprises 17 percent of the total area of the province. It presently provides about 80 percent of all Ontario's outdoor recreation, 90 percent of the mineral aggregate extracted and 20 percent of the timber harvested (Figure 1). Clearly southern Ontario makes an important contribution to the provision of natural resource benefits.

Generally, the intent of the ministry in southern Ontario is to maintain or increase this contribution.

Targets have been developed for ministry programs to the year 2000 (2020 for forestry). The targets assume an annual growth of between one and two percent in resource needs. This is consistent with recent southern Ontario population projections and with demand forecasts.

The targets which have been assigned to each region in southern Ontario are based upon considerations of existing use and resource capability. The proposed future role of each region is demonstrated in (Figure 2). The targets generally allow the present relative contribution of each region to be maintained (Figure 3).

Target evaluation conducted by the ministry has demonstrated that the direction set out can be achieved on a regional basis. Target achievement requires that there be program integration with many activities carried out in the same area. Exclusive use of large areas for a single purpose is generally not possible, although in selected instances it may be necessary to achieve specific program objectives. The ministry strategy in southern Ontario places a major emphasis on integrated resource management.

Target achievement requires that resource potential be maintained and that resource use be allowed to continue. This is recognized through the environmental policy of the southern Ontario strategy.

Ministry targets in southern Ontario must be achieved primarily on private land (Figure 4). This circumstance influences the manner in which the ministry must prepare its plans and how it must achieve its targets. For example, the ministry must emphasize extension programs, technical assistance and other forms of encouragement to private landowners. This is reflected in the *Strategy*.

Ministry targets in southern Ontario also must be achieved primarily in areas under municipal jurisdiction. This too influences the way in which the ministry achieves its targets.

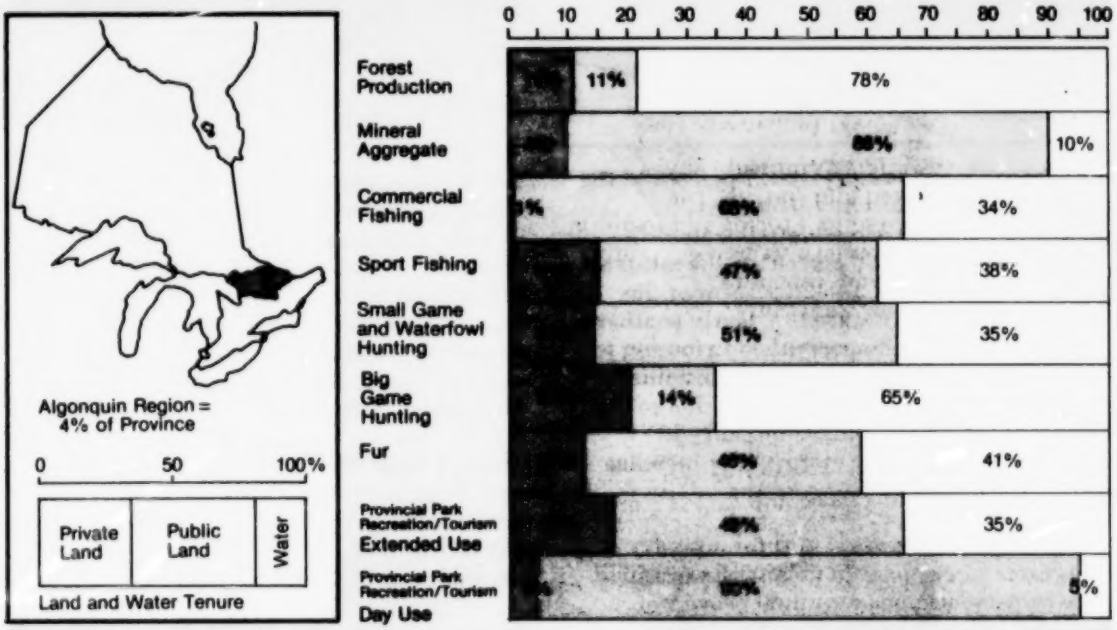
There are 35 conservation authorities in southern Ontario (Figure 5) covering most of the land south of the Precambrian Shield. Conservation authorities are a form of provincial-municipal partnership through which mutual benefits are derived. Resource management activities such as floodplain management, flood damage reduction, erosion control, water conservation and forest management are undertaken. Outdoor recreation opportunities such as swimming, boating, camping, angling, hunting and wildlife viewing are also provided. The ministry will work closely with conservation authorities. The *Co-ordinated Program Strategy* and district land use strategies will provide direction to ministry participation in conservation authority watershed management planning.

The St. Clair, Niagara, and St. Lawrence Parks Commissions are independent agencies which contribute to the achievement of the recreation, protection, heritage appreciation and tourism objectives of the ministry (Figure 6).

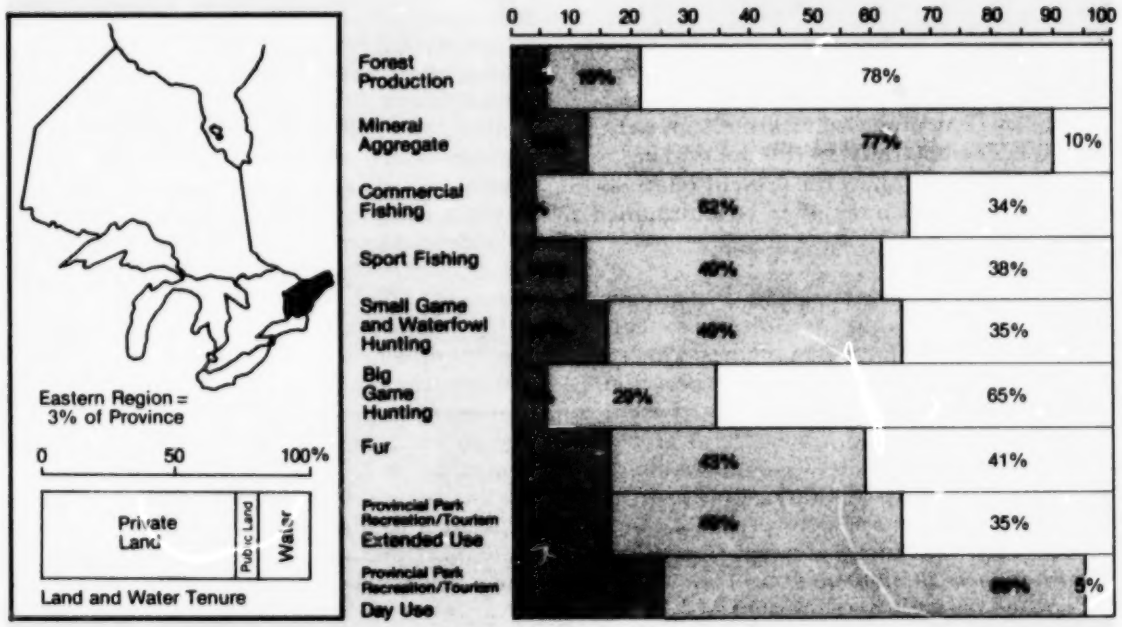
There are a number of other provincial and federal agencies with which the ministry will work closely. These include provincial ministries such as Agriculture and Food, Environment, Municipal Affairs and Housing,

FIGURE 2 PROPOSED FUTURE CONTRIBUTION BY ADMINISTRATIVE REGION TO PROVINCIAL NATURAL RESOURCES PROGRAMS

ALGONQUIN

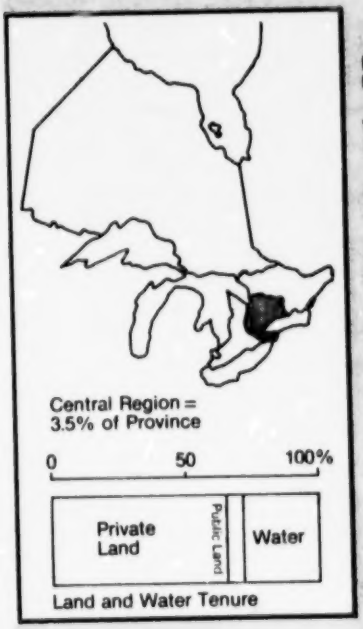


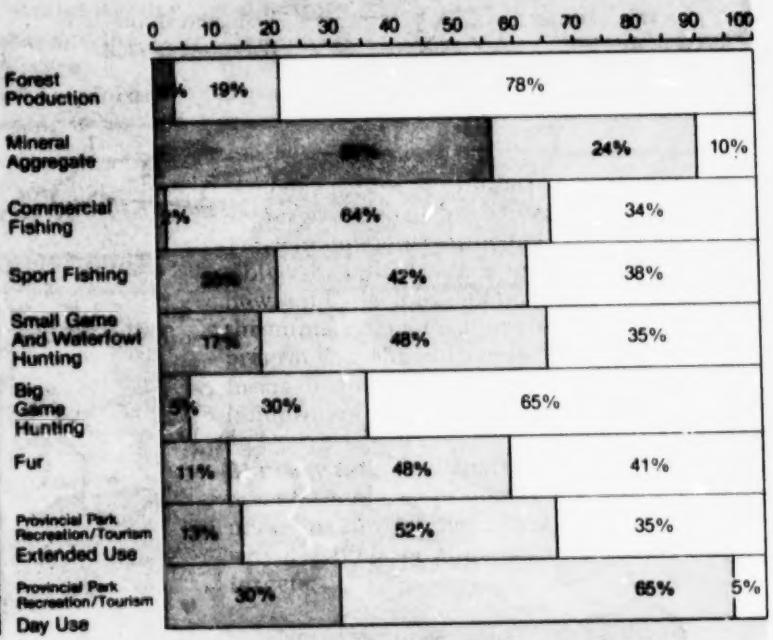
EASTERN



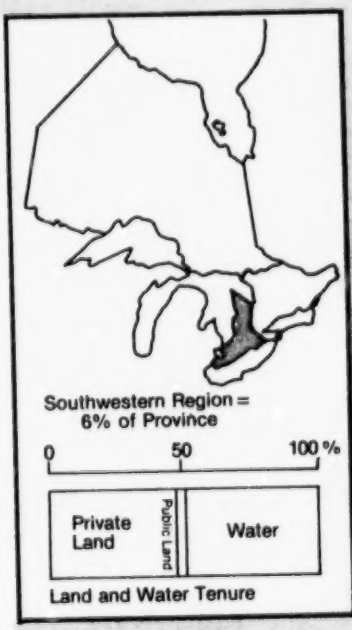
Regional Contribution | Southern Ontario Balance | Northern Ontario

CENTRAL





SOUTHWESTERN



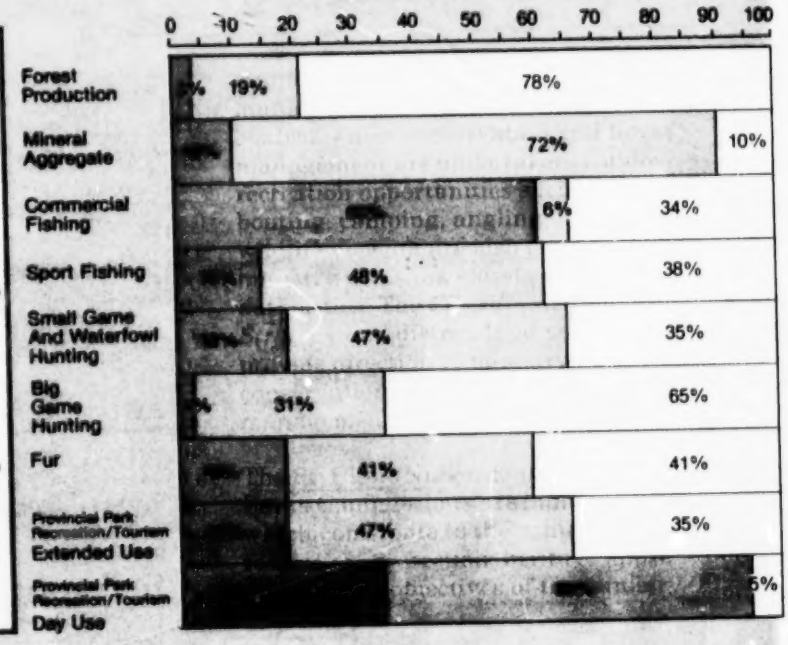
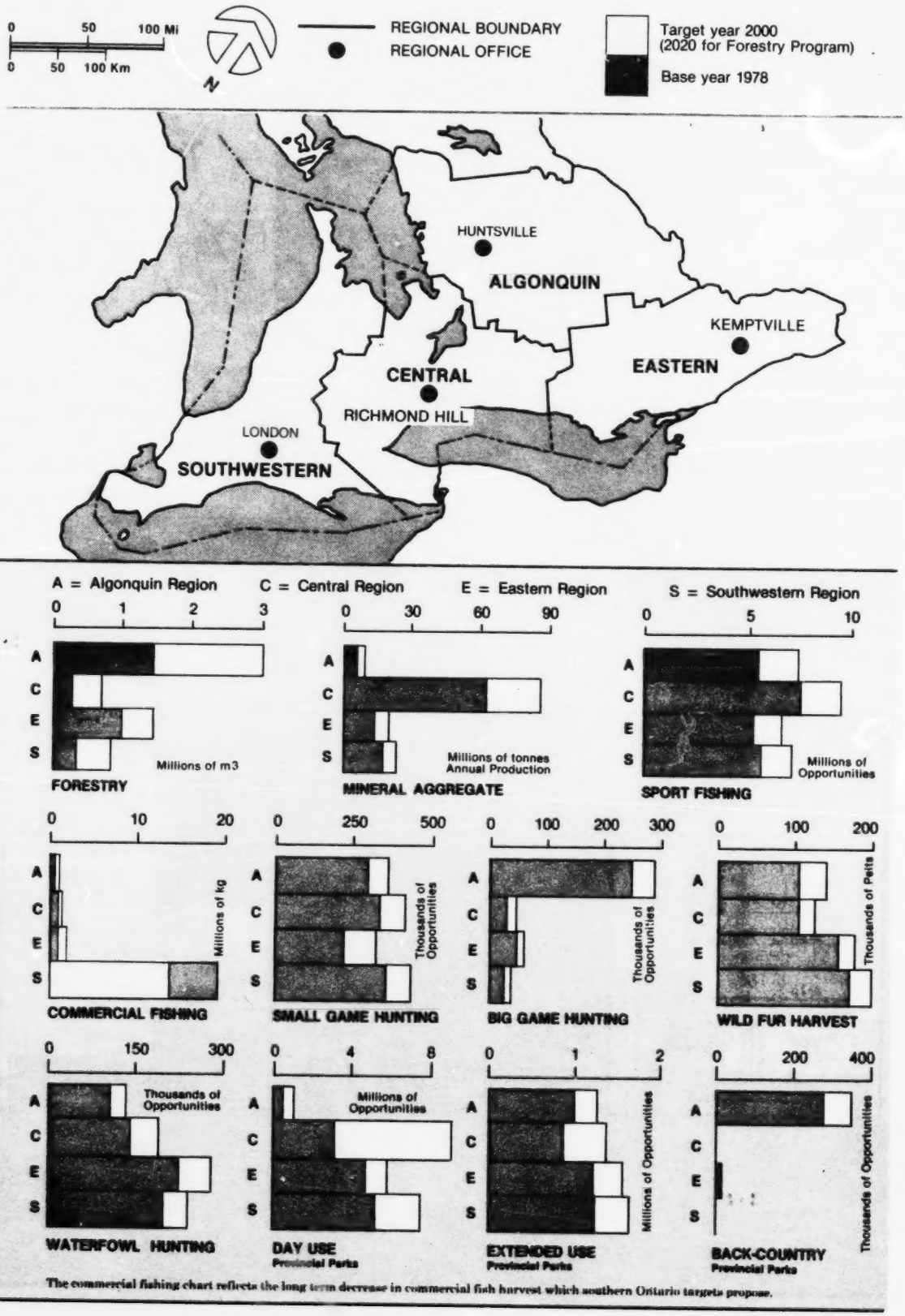


FIGURE 3 PROGRAM TARGETS — A COMPARISON AMONG REGIONS



The commercial fishing chart reflects the long term decrease in commercial fish harvest which southern Ontario targets propose.

and Tourism and Recreation; and federal departments or groups such as Parks Canada and the Canadian Wildlife Service. They also include special agencies such as Ontario Hydro, the Algonquin Forestry Authority, the Niagara Escarpment Commission and the Canada-Ontario Rideau-Trent-Severn (CORTS) Secretariat (Figure 6). The ministry also must consider special planning areas such as the North Georgian Bay Recreation Reserve. Program integration among ministries is ensured through discussions of major proposals in appropriate Cabinet committees.

In addition, the ministry has a working liaison with a wide variety of interested groups and citizens.

FIGURE 4 LAND OWNERSHIP IN THE ADMINISTRATIVE REGIONS

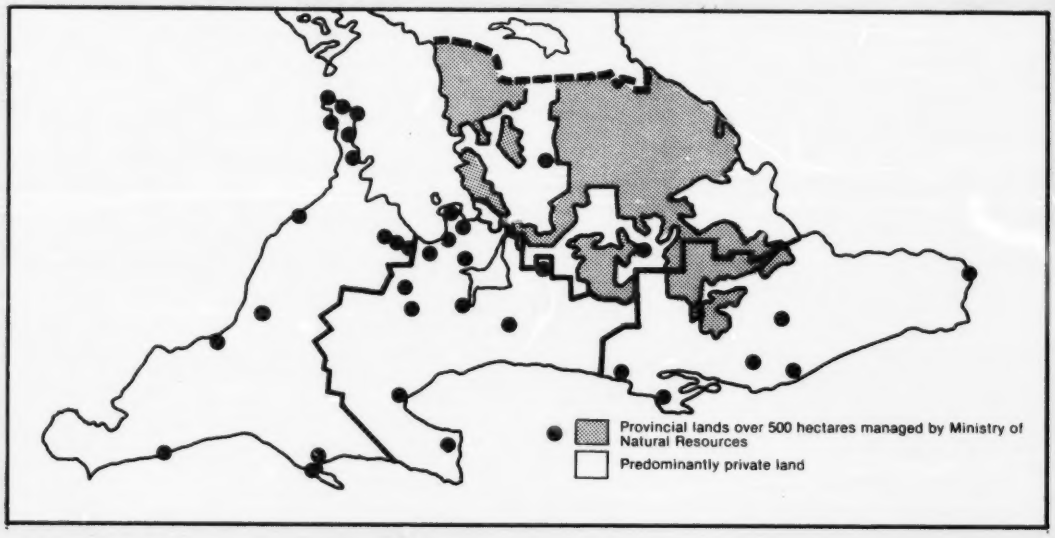


FIGURE 5 CONSERVATION AUTHORITIES

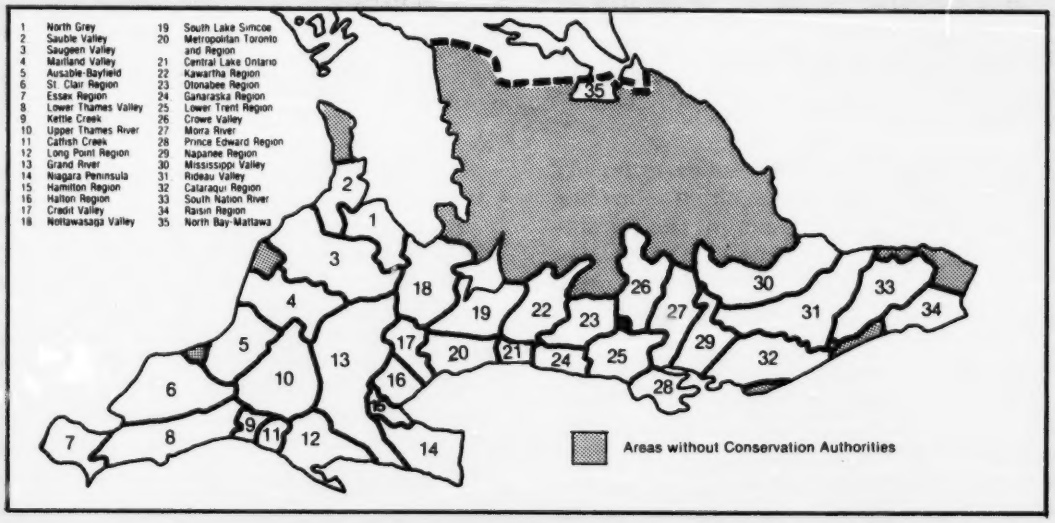
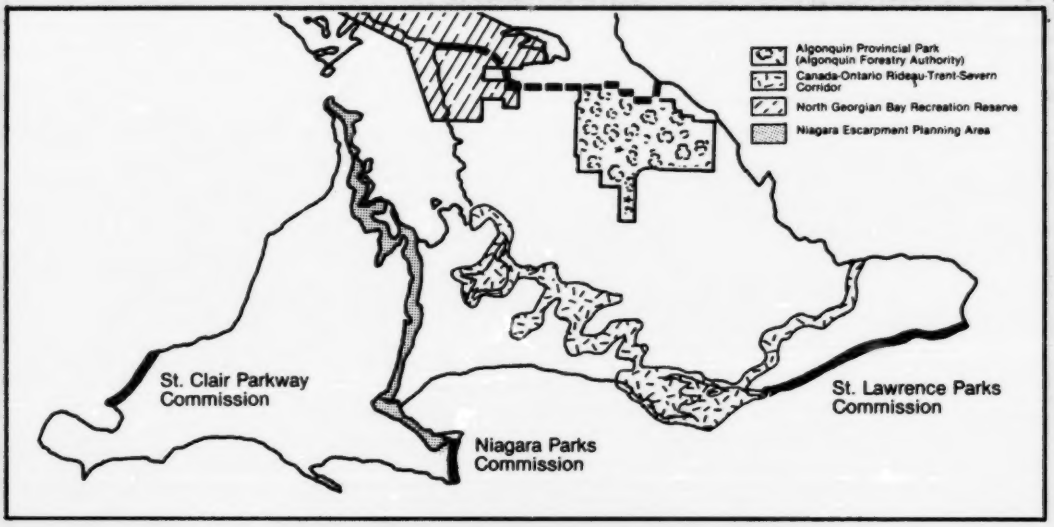


FIGURE 6 SPECIAL AREAS


Algonquin Provincial Park (Algonquin Forestry Authority)
Canada-Ontario Rideau-Trent-Severn Corridor
North Georgian Bay Recreation Reserve
Niagara Escarpment Planning Area
St. Clair Parkway Commission
Niagara Parks Commission
St. Lawrence Parks Commission

III ROLE OF THE MINISTRY

The goal of the ministry is:

- **to provide opportunities for outdoor recreation and resource development for the continuous social and economic benefit of the people of Ontario and to administer, protect and conserve public lands and waters.**

The broad objectives of the ministry are:

RESOURCE PRODUCTION

- **to provide for an optimum continuous contribution to the economy of Ontario by stimulating and regulating the utilization of available supplies of fish, furbearers, minerals and trees by resource products industries;**

OUTDOOR RECREATION

- **to provide from public lands and waters and to encourage on other lands and waters:**
  - **a wide variety of outdoor recreational opportunities accessible to, and for the continuous benefit of, the people of Ontario;**
  - **the identification and conservation of unique or representative physical, biological, cultural and historical features of the province; and**
  - **a continuous contribution to the economy of Ontario from tourism and its related industries; and,**

LAND AND WATER MANAGEMENT

- **to facilitate the orderly development and conservation of Ontario's land and water resources for the continuous social and economic benefits for the people of Ontario; and**

- **to prevent loss of life, and to minimize social disruption, property damage and loss of natural resource values from forest fires, floods, erosion, earth slippage and abandoned mines.**

The ministry has programs to ensure the availability of both renewable and non-renewable resources. It regulates the use of these resources for the long term benefit of the people of Ontario.

The ministry recognizes that outdoor recreation is important for tourism and social well-being. It also recognizes that physical, biological, cultural and historical resources are important elements in the environment and that representative and unique components should be protected.

The ministry has two responsibilities in land and water management: the first is custodial — to protect the capability and quality of public land and water; the second is to participate with other agencies in the planning and control of the total land area.

Specific objectives and targets for resource production and outdoor recreation are identified on the pages which follow. Targets have not been developed specifically for land and water management since these activities are carried out to assist in the achievement of other ministry and government objectives.

The ministry's overall approach to land and water management is identified in policies related to integrated resource management, public safety, environment and energy. Further guidance is provided in each of the specific policy sections: forestry, mineral aggregate, minerals and fossil fuels, fisheries, wildlife, provincial parks, general recreation and land administration.

Ministry objectives in southern Ontario are achieved through an administrative organization of 4 regions and 21 districts (Figure 7).

FIGURE 7 MINISTRY OF NATURAL RESOURCES ADMINISTRATIVE REGIONS AND DISTRICTS IN SOUTHERN ONTARIO

Direction for ministry activities in southern Ontario is provided in two sections: General Policies, and Specific Policies. General Policies deal with integrated resource management, public safety, environment and energy. They have application to all ministry programs and are described in this section.

Specific Policies provide additional direction to individual ministry activities. They are outlined in Section V.

A: integrated resource management

Programs will be integrated to ensure the efficient use of land and water to achieve ministry objectives.

The ministry will:

- **apply the concept of multiple use to land and water management. This means that the ministry will:**
  - **normally require or encourage two or more compatible activities on the same major areas concurrently or sequentially over time; and**
  - **recognize that, in some circumstances, management of areas for a single purpose such as extraction, protection or recreation is necessary;**
- **prepare district land use strategies to provide direction for resource management planning;**
- **ensure that each program contributes, to the extent possible, to the achievement of all ministry objectives. Individual area management plans, including water management plans, will be directed to achieving as many ministry objectives as possible to ensure integrated management and increased efficiency; and**
- **permit interim use of candidate parks providing park values are protected. Uses and facilities which complement the achievement of park objectives will be encouraged; uses which have no significant negative impact on the long term achievement of park objectives will be permitted with judicious controls; and uses which would conflict with the long term achievement of park objectives will be prohibited.**

Target testing and evaluation have demonstrated that the long term direction for ministry programs proposed in this report are achievable providing there is considerable program integration.

Plans for water management will be co-ordinated with district land use strategies and the plans and programs of conservation authorities, other ministries and municipalities.

The preparation of plans and strategies will include public consultation.

A variety of activities may be allowed to occur in candidate parks including hunting, trapping, forest management and mineral exploration providing park values are protected.

B: public safety

The ministry will seek to eliminate loss of life and to minimize property damage and community disruption resulting from floods, erosion, earth slippage and forest fires.

The ministry will seek to eliminate injury and loss of life from hazards around abandoned pits, quarries and mine shafts and from abandoned oil and gas wells.

The ministry will promote the safe pursuit of outdoor recreation and resource production activities.

The ministry will:

- **ensure that new development avoids areas susceptible to flooding, erosion, and earth slippage or occurs only with adequate protection and safeguards;**
- **participate in contingency planning, flood forecasting and provision of remedial works such as dams and channelization where development already exists within hazardous areas;**
- **participate in the mapping of floodplains and other hazardous sites in developed and in developing areas;**
- **suppress forest fires in the fire region based upon consideration of human life, private and public property, wood production and wildlife habitat;**
- **prepare and implement fire management plans in the fire region;**
- **develop co-operative fire prevention and control agreements with municipalities, railways and forest industries;**
- **ensure that development and resource extraction activities in forested areas are designed to reduce the possibility of fire spread;**
- **act as the lead agency in a planned program for response to fire and flood emergencies;**
- **promote the hunter safety training program;**
- **ensure adequate safety measures are provided at abandoned pits, quarries and mine shafts; and**
- **ensure that abandoned gas and oil wells are properly considered in new residential and other development.**

Provincial floodplain management policy will be implemented through co-operation with conservation authorities and municipalities. Efforts will be made in stream flow forecasting, contingency planning, emergency response and through input to floodplain regulations and municipal plans and by-laws. Protection from the regional flood or the one-in-one hundred year flood is normally sought. The policy is that structural development should not occur on hazardous sites except in exceptional circumstances.

For erosion susceptible sites, 100 years of protection for development is the provincial standard.

The ministry will work with the Ministry of Labour to reduce hazards around abandoned pits, quarries and mine shafts.

The ministry will work with the Ministry of Municipal Affairs and Housing and municipalities in the review of development proposals to ensure protection from the above hazards and from dangers associated with abandoned oil and gas wells.

The ministry suppresses forest fires within the fire region — the Algonquin Region and the northern portion of the other three regions. Fires outside the fire region are not the responsibility of the ministry except where specific agreements are in effect.

C: environment

The ministry will conduct its activities in an environmentally responsible manner.

The ministry will:

- **manage renewable resources on a biologically sound basis;**
- **manage non-renewable resources to meet current demands, giving attention to anticipated future needs. The ministry will encourage recycling and will discourage the use of high quality materials where lower quality materials would suffice;**
- **in conjunction with conservation authorities, manage and regulate watersheds including ground water recharge and source areas, valley lands and waterfront areas;**
- **identify and seek to protect significant and representative wetlands and ensure that their values are given due recognition in planning;**
- **identify and protect the habitat of provincially rare and endangered animals and plants;**
- **participate in monitoring the effects of contaminants, including acid rain, on natural resources; and**
- **prepare and implement class and individual environmental assessments to meet the requirements of the *Environmental Assessment Act*.**

All resource management activities carried out by the ministry are subject to the *Environmental Assessment Act*.

D: energy

The ministry will undertake its activities so as to contribute to provincial energy objectives.

The ministry will:

- **ensure that energy potential is considered before a permanent commitment is made to uses which exclude energy production;**

- **recognize wood as an acceptable energy alternative;**
- **determine the energy production potential of ministry operated dams;**
- **install solar power heating systems in selected facilities;**
- **assess the opportunities for heating institutions with wood; and**
- **implement a comprehensive ministry energy action plan.**

The provincial energy program targets to which the ministry will contribute are to supply by 1995 a minimum of 22.5 percent of Ontario's energy from non-renewable (oil, gas, lignite, peat, uranium) resources within the province (1978 amount was 10 percent) and to supply by 1995 at least 15 percent of Ontario's energy from renewable and recoverable resources including hydraulic resources (1978 amount was 13 percent).

Energy production activities which may have impacts on land use include use of hydraulic power, use of forest resources and extraction of peat and other fuels.

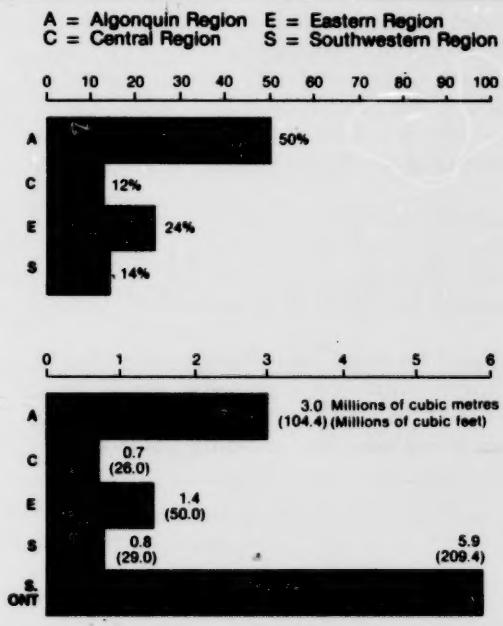
A: forestry

The objective for forestry is to provide for an optimum contribution to the economy of forest-based industries consistent with sound environmental practices, and to provide for other uses of the forest.

The forestry targets in southern Ontario are:

- **to produce an annual continuous supply of 5.9 million cubic metres (209 million cubic feet) of wood for industrial purposes by the year 2020 (Figure 8) while maintaining the present diversity of forest products; and**
- **to make the maximum contribution from forest production to the achievement of the provincial energy target. This is estimated to be 2 percent or more of total energy needs by the year 2000.**

FIGURE 8 REGIONAL SHARE OF THE SOUTHERN ONTARIO ANNUAL WOOD PRODUCTION TARGET FOR THE YEAR 2020



The ministry will:

- **improve forest management efforts on both private and public lands to increase the quality and quantity of production, to protect environmental values and to enhance recreational opportunities;**
- **prepare forest management plans which assist in the achievement of all ministry objectives;**
- **undertake co-operative forest management activities with conservation authorities, municipalities and individual landowners;**
- **maintain and selectively increase the area of forested land in southern Ontario; in particular, maintain forest production on existing woodlots in agricultural areas, maintain and selectively increase forest production on Crown land and low capability agricultural lands, and where feasible introduce rapid growing and short rotation species on appropriate sites;**
- **promote the effective marketing of forest products including fuelwood, other low grade material and specialty products;**
- **apply management prescriptions to conserve significant and representative forest environments;**
- **encourage the use of wood as a fuel, conduct inventories and investigate the possibility of wood production specifically for conversion to energy;**
- **direct research to management related problems; and**
- **protect forest resources through application of a policy statement prepared as defined in the proposed revisions to the *Planning Act*.**

Southern Ontario supports a wide range of coniferous and deciduous tree species. Species present include valuable hardwoods such as black walnut, oak, maple and yellow birch. They also include valuable softwoods such as white and red pine.

Total present southern Ontario harvest for industrial purposes is about 2.7 million cubic metres of wood (94 million cubic feet) of which about 10 percent is exported.

Southern Ontario's wood-using industry consumes about 3.7 million cubic metres (130 million cubic feet) of wood annually equally divided between sawlog and veneer, and pulpwood and miscellaneous products. Thus southern Ontario industry consumes some 1.3 million cubic metres (45 million cubic feet) of wood which is obtained from northern Ontario or from outside the province.

Statistics for fuelwood are not available but it is estimated that between 1.3 and 1.7 million cubic metres (45 to 60 million cubic feet) are harvested annually for this purpose in southern Ontario.

Demand for wood for industrial purposes in southern Ontario is expected to double by the year 2025. In addition increased demand for other forest benefits including outdoor recreation and energy contributions are anticipated.

The total area of productive forest land in southern Ontario (existing forested land and open land with low agricultural capability suitable for planting) is about 3.6 million hectares (9 million acres) and could support an allowable cut of about 8.49 million cubic metres (300 million cubic feet) of wood. Much of this allowable harvest is presently low grade material. To meet the target while maintaining the present diversity of wood products requires extensive forest improvement.

Crown land, even with increased management, can provide no more than 40 percent of anticipated future industrial needs. Forests on private land are therefore essential to the achievement of wood production targets.

Achievement of targets on private land is complicated by the large number of individual owners and the small size of holdings.

The targets reflect the total amount of productive forest land in each administrative region modified by considerations of land ownership, potential productivity and competing land uses.

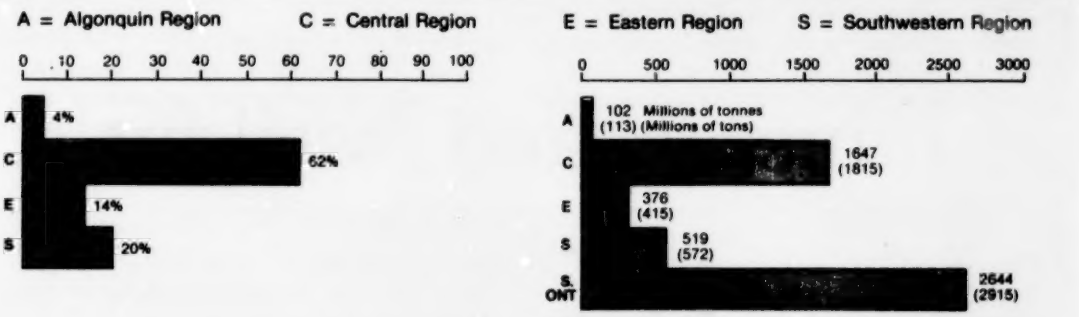
B: mineral aggregate

The objective for mineral aggregate production is to meet anticipated future demand with minimal disturbance to the natural and cultural resources and the social environment.

The target for mineral aggregate production is to ensure a total cumulative supply of 2644 million tonnes (2915 million tons) for the period 1982 to 2000 (Figure 9).

The target represents the minimum supply which must be protected. Beyond this, the ministry will seek protection of as much additional aggregate as is practicable in the context of other necessary land use planning objectives.

FIGURE 9 REGIONAL SHARE OF THE SOUTHERN ONTARIO TARGET FOR MINERAL AGGREGATE FOR THE PERIOD 1982-2000 (CUMULATIVE SUPPLY)



The ministry will:

- **protect mineral aggregate resource areas through application of a provincial policy statement prepared as defined in the proposed revisions to the *Planning Act*;**
- **provide basic resource data and a definition of local and provincial needs to permit identification of the areas required to meet those needs;**
- **encourage higher priority for protection of natural aggregate (sand and gravel) due to its more limited extent and greater value than crushable stone;**
- **require orderly extraction and progressive rehabilitation so that aggregate extraction represents an interim land use activity with a minimum disturbed area at any one time;**
- **ensure that extractive operations have a minimum impact on adjacent land uses;**
- **apply evaluation and approval procedures for new operations and for expanding existing operations including consideration of special features and resources;**
- **require operating standards to reduce the impact of existing and proposed operations; and**
- **investigate means whereby the supply burden of certain high production municipalities can be reduced, including examining alternative sources, recycling and substitutes.**

The intent of the mineral aggregate program strategy is to ensure continued availability of aggregate while considering the impact of extraction both on-site and on surrounding areas.

Many of the strategies will be implemented through the new *Aggregates Act* which is being proposed as a replacement for the *Pits and Quarries Control Act*.

In 1979, mineral aggregate production in southern Ontario was approximately 100 million tonnes (110 million tons). The value of this production was about $200 million. Less than five percent of this came from Crown land.

The target provides for anticipated demand to the year 2000 and thus represents the minimum supply of aggregate which must be protected to meet future needs.

The target represents a major decrease from previous projections.

Crown lands in southern Ontario are not expected to make a significant contribution to the future provision of aggregate.

The known supplies of aggregate in southern Ontario are more than adequate to meet the target. Nonetheless, because of the highly localized nature of the demand and production, there will be some shortages of desired types and qualities of aggregate, particularly sand and gravel.

If adequate resources are to be available, the industry must work closely with provincial and municipal governments to reduce the conflicts and minimize the adverse impacts of aggregate extraction.

A recent examination of long distance hauling has confirmed that it is not an economic alternative at this time.

C: minerals and fossil fuels

The objective for minerals and fossil fuels is to provide for a strengthening of the contribution of these resources to provincial economic development and energy production.

The target for mineral resources is to keep open as much Crown land and unalienated mining rights as possible for mineral exploration and development.

The target for oil and gas is to contribute to the provincial energy target of providing 0.3 percent or more of the total provincial energy needs by 2000.

Specific mining production targets cannot be established because of difficulties in predicting market trends and assessing resource potential.

The ministry will:

- **ensure mineral values are evaluated before a permanent commitment of public land to uses incompatible with mining occurs. In areas where significant non-mineral values exist, the ministry will, where possible, permit exploration under controlled conditions before a permanent decision is made. The ministry will permit mining exploration and extraction in candidate parks under controlled conditions in accordance with the interim use policy outlined on page 11 under Integrated Resource Management;**
- **encourage municipalities to support mineral exploration and extraction;**
- **in conjunction with other government agencies, encourage industry to bring new deposits into production as soon as economic conditions permit and encourage further domestic processing of ore;**
- **identify favourable geological areas and expand the geoscience data base through collection, storage and dissemination of information;**
- **encourage exploration in known oil and gas bearing deposits and in peat deposits in southern Ontario;**
- **conduct surveys and research in order to establish the limits of Ontario's oil and gas potential;**
- **investigate the possibility of increasing fossil fuel production from under the Great Lakes, including opening Lake Huron and Lake St. Clair to oil and gas production and opening Lake Erie to oil production;**
- **administer the drilling and extraction of fossil fuels to meet acceptable environmental standards; and**
- **protect representative and outstanding geological features.**

The value of metallic, non-metallic and industrial minerals (excluding sand and gravel) produced in southern Ontario in the late 1970s exceeded $300 million annually. This represented greater than 10 percent of the total value of all mineral production (including sand and gravel and fossil fuels) in the province.

In 1979 rates of provincial production were estimated at 190.0 cubic metres (1,600 barrels) of oil and 1.13 million cubic metres (40 million cubic feet) of gas per day. This represents about 0.2 percent of Ontario's total daily energy needs from all sources. The majority of this production comes from southwestern Ontario. Ontario produces about 2 percent of the provincial demand for gas.

An additional aspect of this industry is storing western gas in depleted reservoirs which will accommodate approximately a two month's supply.

There is potential for new discoveries of oil and gas in southwestern Ontario although

Lake St. Clair and Lake Huron are currently closed to exploration by agreement with the United States and, at present, only gas production is allowed from Lake Erie.

Land use related problems faced by the mining industry in southern Ontario include removal of lands from staking and/or mineral exploration before their potential has been adequately assessed and the difficulty of obtaining exploration and mineral rights on private land.

D: fisheries

The objective for fisheries management in southern Ontario is to provide opportunities for recreation and economic benefits consistent with the maintenance of healthy fish communities.

More specific objectives are:

SPORT FISHING
- **to meet demand within the limits of a wisely managed and rehabilitated resource;**

COMMERCIAL FISHING
- **to maintain a viable industry;**

BAIT FISHING
- **to maintain current production; and**

PROVINCIALLY RARE AND ENDANGERED SPECIES
- **to prevent the extinction of any native species.**

The targets are:

SPORT FISHING
- **to provide 30 million recreation opportunities by the year 2000 (Figure 10). This will require the production of 9.7 million kilograms (21 million pounds) of fish annually;**

COMMERCIAL FISHING
- **to provide 14.5 million kilograms (32 million pounds) of fish annually by the year 2000 (Figure 12);**

BAIT FISHING
- **to provide 6.8 million dozen fish annually (Figure 11) from natural sources. This production is in addition to the commercial fishing target; and**

PROVINCIALLY RARE AND ENDANGERED SPECIES
- **to ensure no native fish species become extinct.**

FIGURE 10 REGIONAL SHARE OF THE SOUTHERN ONTARIO SPORT FISHING TARGET FOR THE YEAR 2000

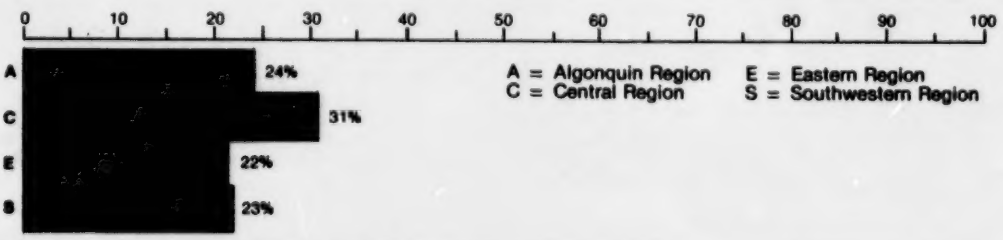


FIGURE 10 (continued) REGIONAL SHARE OF THE SOUTHERN ONTARIO SPORT FISHING TARGET FOR THE YEAR 2000

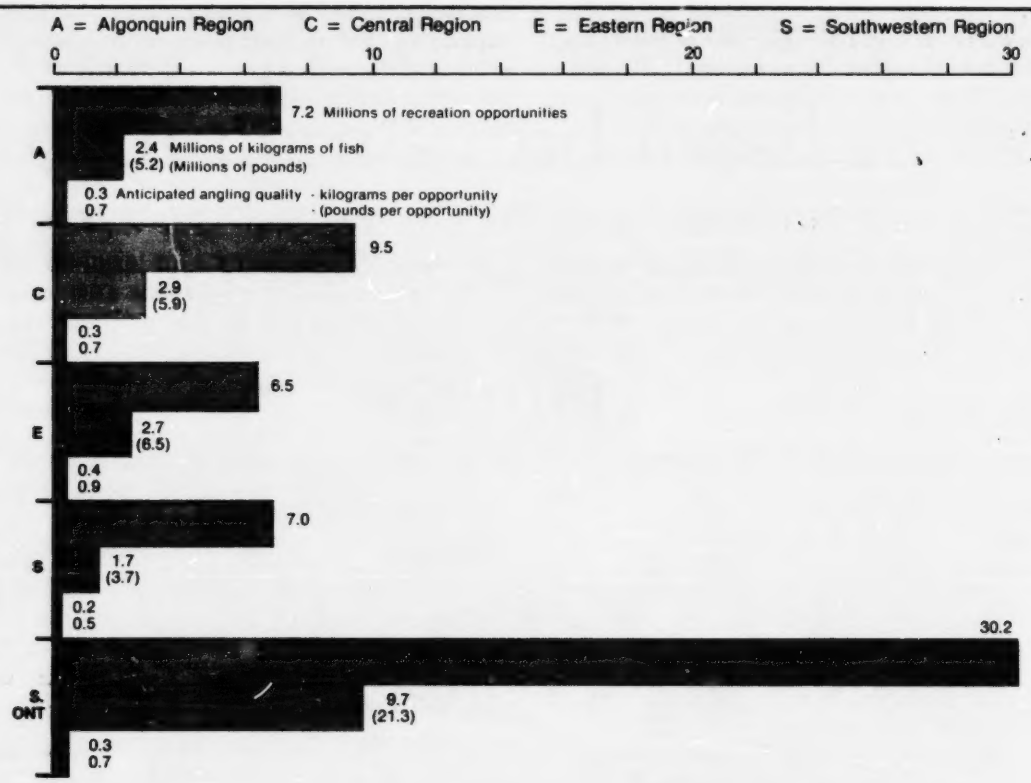


FIGURE 11 REGIONAL SHARE OF THE SOUTHERN ONTARIO BAIT FISHING TARGET FOR THE YEAR 2000

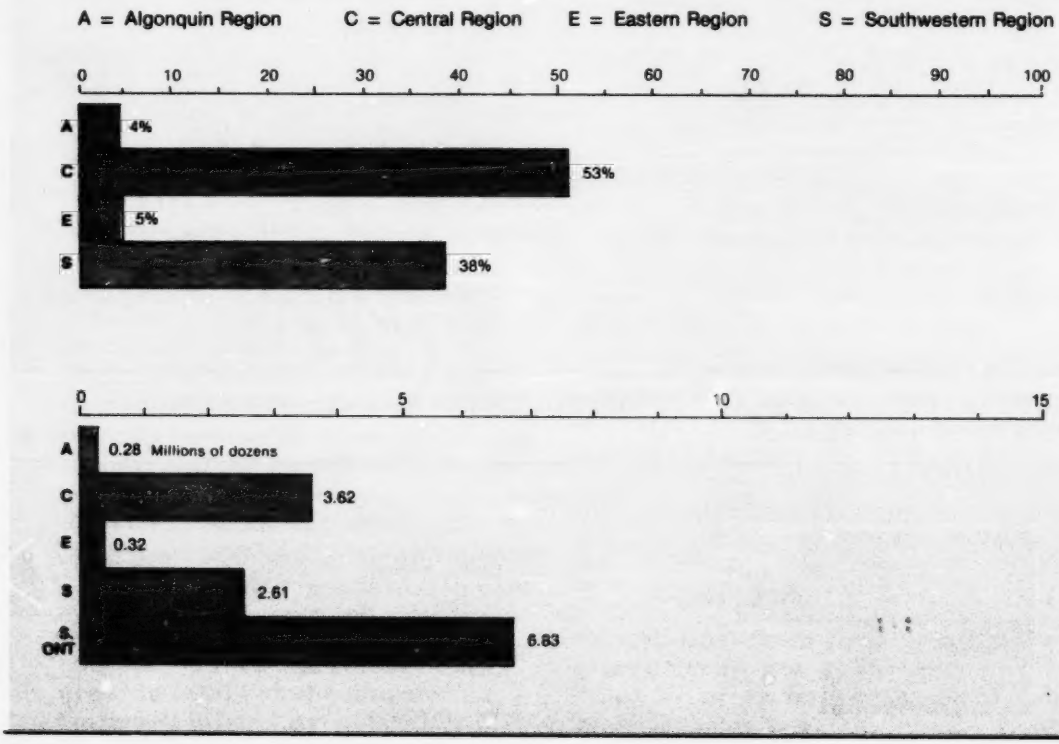
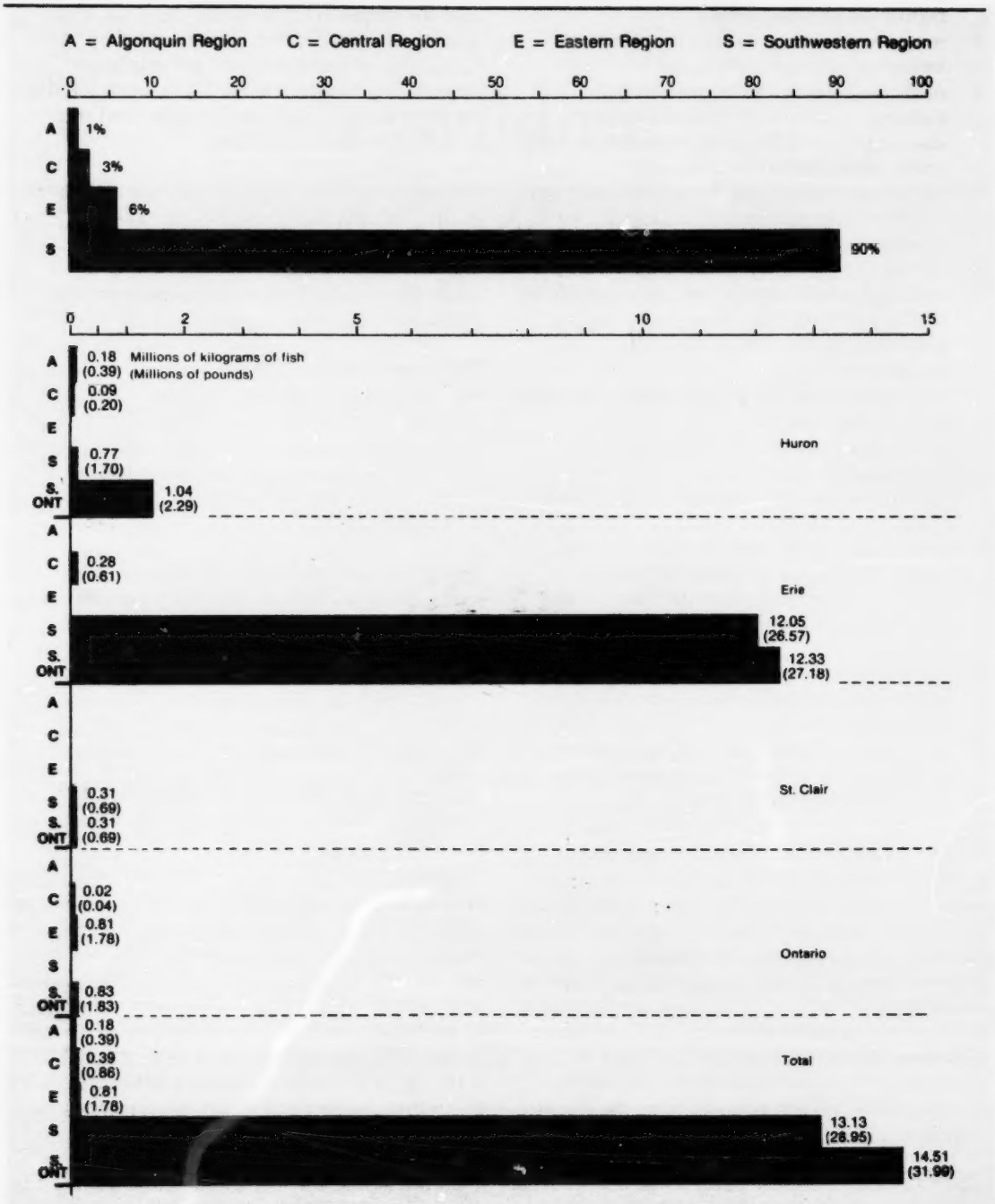


FIGURE 12 REGIONAL SHARE OF THE SOUTHERN ONTARIO COMMERCIAL FISHING TARGET FOR THE YEAR 2000



The targets for fisheries are based upon the best information presently available. As this information is refined, the targets will be re-evaluated.

The ministry will:

- **ensure harvests are consistent with the productivity of individual fisheries;**
- **protect critical fish habitat including spawning beds, nursery areas and water quality and carry out restoration where necessary and possible;**
- **manage fish communities rather than individual species. This strengthening or re-establishment of fish communities will normally emphasize native species;**

- **investigate aquatic communities, and the mechanisms which determine fisheries productivity;**
- **more accurately assess angling activity, success rates and harvest;**
- **maintain access to recreational fishing waters and improve the distribution of fishing pressure within each administrative region;**
- **assist marketing and recreational use of presently under-utilized fish species;**
- **direct research to resolving management related problems such as finding practical means for more selective commercial fishing;**
- **create and maintain fisheries to provide angling opportunities in areas of high demand;**
- **undertake co-operative fisheries management activities with conservation authorities, organized groups and landowners;**
- **protect fish habitat through application of a provincial policy statement prepared as defined in the proposed revisions to the *Planning Act*;**
- **participate in monitoring the effects of acid rain and other contaminants on fisheries; and**
- **identify and provide appropriate protection to rare and endangered species of fish.**

The principal aim of fisheries management is to restore a balanced fish population which can support an active sport and commercial fishery from naturally reproducing fish stocks. Fishing activity will be controlled to ensure that harvests are in line with the sustainable yields of southern Ontario waters. This means that in the case of commercial fishing, there will be a reduction in harvest from 20.0 million kilograms (44 million pounds) to 14.5 million kilograms (32 million pounds) from the Great Lakes.

The targets propose use of up to the sustainable yield of the fishery of southern Ontario.

Sport fish catch is estimated to be about 9.5 million kilograms (21 million pounds) annually, and the target maintains this harvest. The quality of sport fishing, as measured by kilograms of fish harvested per angling opportunity varies (Figure 10) based upon the demand for fishing in each region and the potential production of fish.

Current total fish harvest is estimated to be 29.5 million kilograms (65 million pounds).

Recent estimates indicate that the potential sustainable yield is 24 million kilograms (53 million pounds).

The targets for commercial use propose a range from less than 30 percent of Lake Huron's sustainable yield to nearly 90 percent of Lake Erie's sustainable yield. The average proportion for commercial use from the Great Lakes in southern Ontario is about 75 percent of the sustainable yield.

The exact determination of proportions of sustainable yield for the sport and commercial fishery by lake will be recommended by the ministry's lake management committees. The process to be used is described in the report *An Allocation Policy for Ontario Fisheries*.

It is expected that on certain inland waters commercial fishing will continue, directed primarily toward fish not sought by sport fishermen.

It should be noted that the proposed proportions should be viewed in the context of the ministry's policy of sport fishing having a higher priority than commercial fishing. As a result, the commercial fishery will not necessarily consist of a specific proportion of the sustainable yield of each fish species but will be directed toward harvesting species that cannot be caught by angling, or that are not sought by sport fishermen, or stocks that are not accessible because they are found far out in the lakes.

Fish harvested by native people are included in the sport and commercial figures.

E: wildlife

The objective for wildlife management in southern Ontario is to provide opportunities for social and economic benefits from wildlife recreation and fur harvest consistent with the maintenance of healthy wildlife populations.

More specific objectives are:

WILDLIFE RECREATION
- **to provide opportunities sufficient to maintain the present rate of participation and quality of hunting by residents;**
- **to maintain the contribution to the economy of hunting by non-residents; and**
- **to provide increased opportunities for viewing wildlife and its habitat;**

FUR
- **to sustain the maximum yield from wild furbearer populations while maintaining the present diversity of fur types; and**

PROVINCIALLY RARE AND ENDANGERED SPECIES
- **to prevent the extinction of any native wildlife species.**

The targets are:

WILDLIFE RECREATION
- **to provide by the year 2000, 2.9 million opportunities of hunting recreation per annum, including 0.5 million opportunities of big game hunting, 1.6 million opportunities of small game hunting and 0.8 million opportunities of waterfowl hunting (Figure 14); and**
- **to provide increased opportunities for viewing wildlife and its habitat; and**

FUR
- **to manage populations of wild furbearers such that an average harvest of 650,000 pelts can be achieved by the year 2000 while maintaining present species diversity (Figure 13); and**

PROVINCIALLY RARE AND ENDANGERED SPECIES
- **to ensure no native wildlife species becomes extinct.**

FIGURE 13 REGIONAL SHARE OF THE SOUTHERN ONTARIO FUR HARVEST TARGET FOR THE YEAR 2000

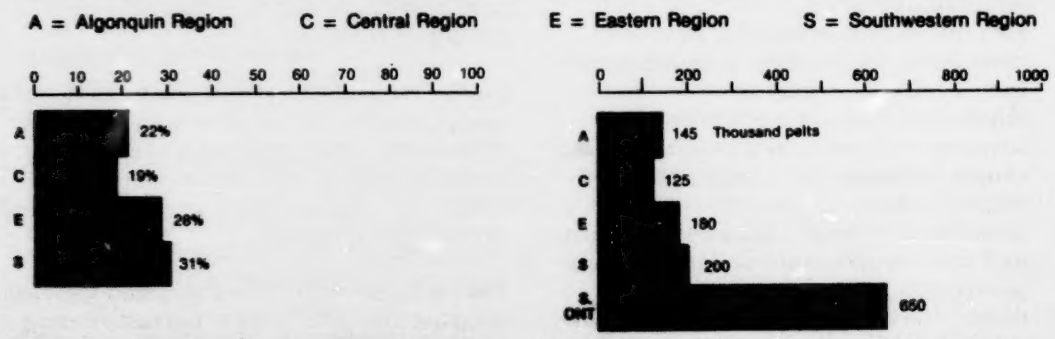
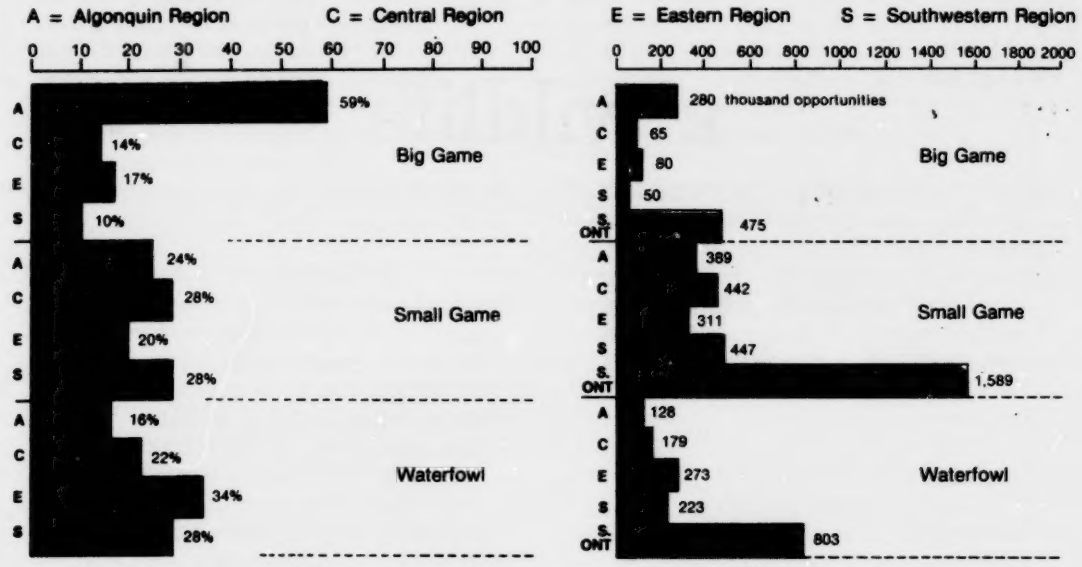


FIGURE 14 REGIONAL SHARE OF SOUTHERN ONTARIO WILDLIFE RECREATION TARGETS FOR THE YEAR 2000



The ministry will:

- **protect the habitat of those species necessary to achieve the targets. More specifically, wetlands, deer wintering areas and production areas of provincially rare or endangered species will be protected;**
- **work with private groups and conservation authorities who can assist in the acquisition or management of wildlife habitat;**
- **work with municipalities and conservation authorities to encourage the continued availability of lands for hunting;**
- **encourage and provide access to a variety of viewing and hunting opportunities on public and private land. Within urban areas, this will include encouraging the establishment of wildlife areas which provide educational and non-hunting wildlife recreation opportunities. In rural areas, this will include a significantly increased extension effort to encourage management of, and to increase or maintain access to, private lands, and also the acquisition of critical areas;**
- **identify rare and endangered species and take appropriate action for their protection;**
- **direct research toward management-related problems;**
- **encourage efficient and humane trapping through improved trapper education; and**
- **protect wildlife habitat through application of a provincial policy statement prepared as defined in the proposed revisions to the *Planning Act*.**

The southern Ontario hunting targets assume that the present trend of declining participation in hunting will stabilize and that any increases in the number of hunters and hunting occasions will correspond with the anticipated increases in the Ontario population between now and the year 2000.

The hunting targets are further based on the premise that the present geographic distribution of hunting activity will continue. Although hunting targets are considerably lower than past projections they, nonetheless, will be difficult to achieve.

On the Precambrian Shield, major increases in deer population can occur only by increasing enforcement effort, predator control, the control of harvest and the amount of forest disturbance along with preservation of essential winter coniferous cover.

The fur target represents a moderate increase in trapping and is the level of harvest existing furbearer populations are capable of supporting.

Factors which may limit wildlife harvest in the future are: natural catastrophes such as disease epidemics, problems in obtaining access to private property, the uneven distribution of efforts, loss of habitat and public opposition.

The target for wildlife viewing has not been quantified because of the difficulty of measuring this activity and of assessing the influence of management actions.

Species designated under the *Endangered Species Act* include: blue racer, timber rattlesnake, peregrine falcon, bald eagle, West Virginia white butterfly, Lake Erie island water snake, piping plover, Eskimo curlew, golden eagle, white pelican, eastern cougar and Kirtland's warbler.

At this time, habitat management and protection efforts are directed toward endangered species and species which are hunted and trapped. New policies and programs are being considered for habitat management and protection for song birds, raptors and other species which are not hunted or trapped.

Wild rice is administered under the *Wild Rice Harvesting Act.*

F: provincial parks

The objectives of the provincial parks system are:

PROTECTION
- **to protect provincially significant elements of the natural and cultural landscape of Ontario;**

HERITAGE APPRECIATION
- **to provide opportunities for exploration and appreciation of the outdoor natural and cultural heritage of Ontario;**

RECREATION
- **to provide provincial park outdoor recreation opportunities ranging from high intensity day use to low intensity wilderness experiences; and**

TOURISM
- **to provide Ontario's residents and out-of-province visitors with opportunities to discover and experience the distinctive regions of the province.**

The targets for the provincial parks system are:

PROTECTION

Earth Science
- **to protect a system of provincially significant, representative and special earth science features through representation of the thirty-five geological environments of southern Ontario;**

Life Science
- **to protect a system of provincially significant life science features through representation of each vegetative site type in the three site regions in southern Ontario;**

Historical Resources
- **to protect a system of provincially significant landscape-related prehistorical and historical resources through representation of the fourteen themes of southern Ontario's history;**

HERITAGE APPRECIATION
- **to maximize opportunities for unstructured individual**

exploration and appreciation of the outdoor natural and cultural heritage of southern Ontario through the provision of a wide variety of interpretive and educational programs;

RECREATION

Day Use

- to provide to the people of southern Ontario by the year 2000, an accessible annual supply of swimming and picnicking opportunities in provincial parks, comprising 1,450 opportunities per 1,000 people in the population;

Extended Use

- to provide to the people of southern Ontario by the year 2000, an annual accessible supply of developed camping opportunities in provincial parks, comprising 420 camper days per 1,000 people in the population;

Back-country

- to provide to the southern Ontario population by the year 2000, an annual supply of back-country opportunities in provincial parks, comprising 43 back-country days per 1,000 people in the population; and

TOURISM

- to provide a supply of camping and day use opportunities for tourists in provincial parks in southern Ontario, allowing for a growth rate equal to the population growth rate for major tourism market areas.

The lands required to fulfill the protection and heritage appreciation targets have not been completely identified for southern Ontario. Figure 15 indicates the current representation of earth science, life science and historical resources based upon inventory and evaluation to date. Further study is necessary to identify those sites which will provide complete representation.

In assessing the degree of target achievement three categories of land were considered — provincial parks, proposed candidate areas for addition to the pa.ks system, and other public and private lands. Many of the sites in the "other public and private lands" category will be protected through specific arrangements, such as landowner agreements.

The recreation and tourism targets for the four administrative regions are shown in Figure 16. Further information on the achievement of park targets and class standards is presented in Appendix A.

The ministry will:

- retain in the provincial parks system only those parks that merit provincial designation and manage the retained parks to contribute to the targets;
- manage those areas identified as candidate parks according to the interim use policy outlined on page 11 under Integrated Resource Management, in order to ensure that park values are protected. Mining exploration and extraction and forestry may be permitted in candidate parks under controlled conditions;
- consider the following factors in the establishment of new parks:
  - the ability of a candidate park to contribute to more than one park objective,
  - the degree to which the protection of unique and representative features and provincially significant areas is provided by the ministry and other agencies,
  - the deficits of recreation opportunities in provincial parks, on all public land and from all public and private land, and
  - the economic stimulus which could be provided to surrounding areas;
- before establishing new provincial parks, ensure:
  - an opportunity for all interests to present their views and to identify areas of concern;
  - an examination of the options which may exist to meet the needs of all interests; and

FIGURE 15 ACHIEVEMENT OF PROTECTION TARGETS

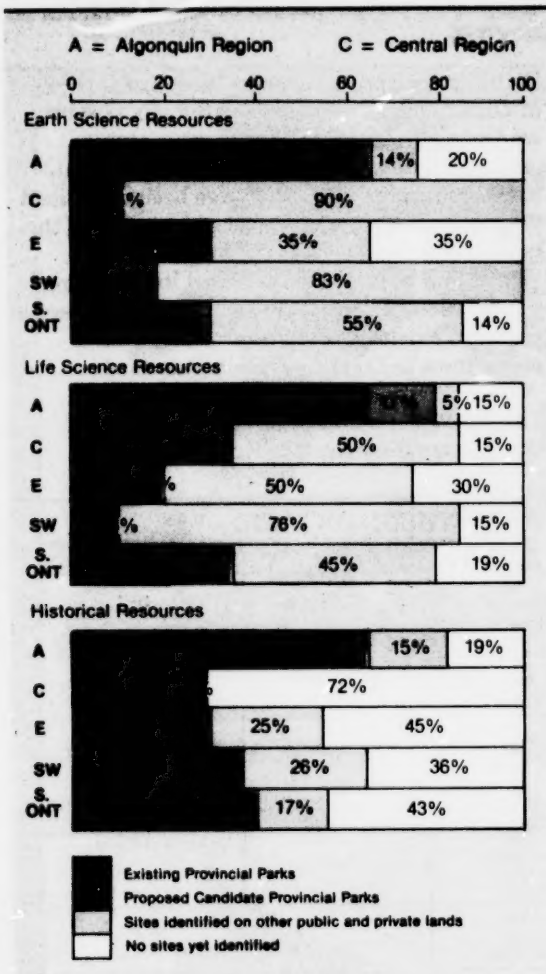
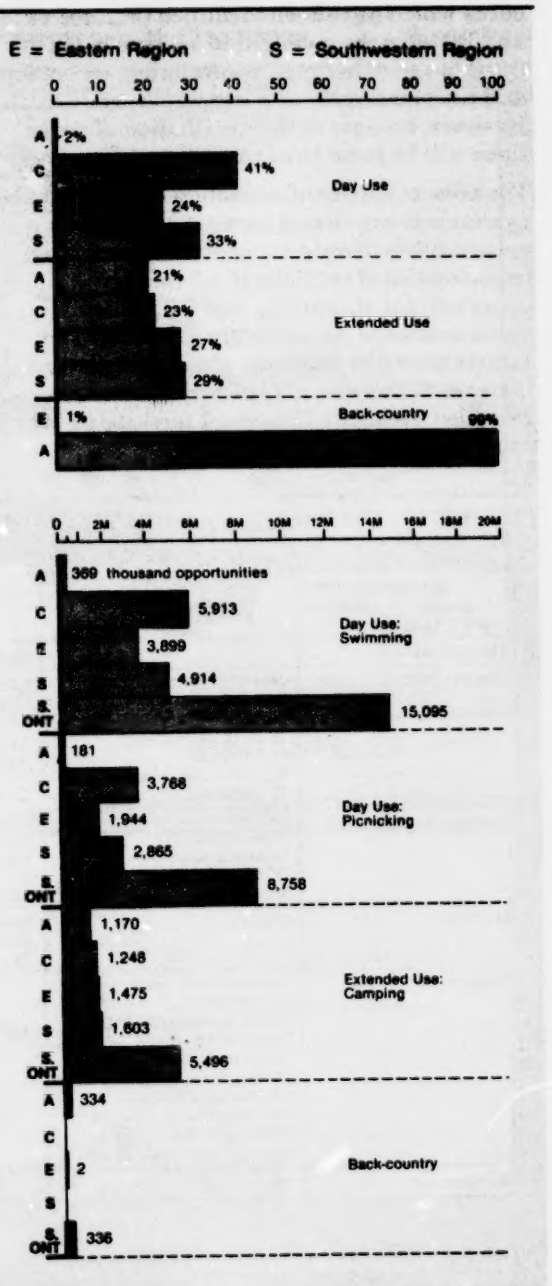


FIGURE 16 REGIONAL SHARE OF PROVINCIAL PARK RECREATION TARGETS FOR THE YEAR 2000



- an economic and social analysis of each option whenever appropriate;

- develop new methods for achieving some targets, for example, contracting park campground operations to private operators and seeking the assistance of conservation authorities, municipalities, federal agencies and private landowners in achieving protection targets;
- protect earth and life science areas and historical resources of provincial significance outside of provincial parks through application of a provincial policy statement prepared as defined in the proposed revisions to the *Planning Act*; and
- continue investigations of features required to achieve full representation of earth science, life science and historical resources.

Note Swimming and picnicking are used to represent the day use activities which occur in provincial parks. Car camping represents extended use activities and canoeing represents back-country recreation. Other activities occur and are important in provincial parks, however the selected activities are useful indicators.

The protection objectives will be met both within and outside provincial parks.

Existing parks and the proposed candidate parks which have been identified (Figures 17 and 18) have the potential to achieve much of the protection, heritage appreciation, recreation and tourism targets at a regional level. However, because of the distribution of parks there will be some local recreation deficits.

The present supply of recreation estimated to be available in provincial parks is 12.3 million opportunities of swimming, 5.2 million opportunities of picnicking, 4.0 million opportunities of camping and 0.3 million opportunities of back-country canoeing. The targets therefore represent about a 39 percent increase in day use, a 37 percent increase in extended use and a 27 percent increase in back-country recreation.

The Lake St. Clair, Niagara and St. Lawrence Parks Commissions have been included as part of the provincial supply of recreation both in calculating present supply and in developing targets.

For administrative purposes, provincial parks in Ontario have been divided into six classes: wilderness, natural environment, nature reserve, waterway, recreation and historical. Representation standards have been developed for each class of park with the exception of the recreation class. These standards assist in identifying park candidates and in achieving park targets. Figure 20 demonstrates the degree to which existing and proposed candidate parks meet the representation standards.

The site regions and districts of southern Ontario are illustrated in Figure 19.

FIGURE 17 PROPOSED CANDIDATE PARKS IN SOUTHERN ONTARIO

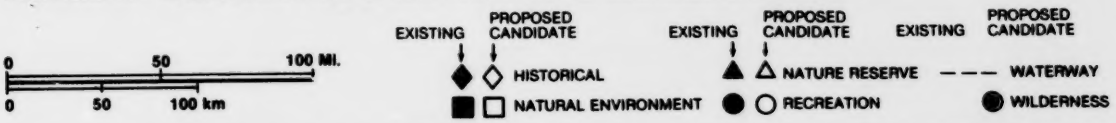
Administrative Region / Proposed Park Class	Algonquin	Central	Eastern	Southwestern
Historical		Quackenbush		
Natural Environment	Bauer Bell Bay Bigwind Blackstone Harbour Hardy Lake Kawartha Highlands Westmeath	Giant's Tomb Indian Point[1] Mono Cliffs Shorthills Wolf Island[1]		Black Creek Pretty River Valley
Nature Reserve	Centennial Lake Egan Chute Lowrie Lakes O'Donnell Point Round Lake	Bass Lake Duclos Point Lavender Falls[1] Matchedash Scott's Falls	Timber Island[2]	Fish Point Lighthouse Point
Recreation	Chetwynd	Boyne Valley Credit Forks James N. Allan		Komoka
Waterway	Bonnechere River East River Lower Madawaska River Magnetewan River Opeongo River Ottawa River (Chenal du Rocher Fendu) Oxtongue River Petawawa/Barron River Upper Madawaska River		Otter Lake to Charleston Lake	
Wilderness	Brown-Wilson			

Notes 1 There is some uncertainty about the most suitable classification for these proposed candidate parks. This topic will be reviewed during master planning.

2 Timber Island is currently designated under the Wilderness Areas Act. It is proposed that it be redesignated as a nature reserve class park.

3 The following nineteen high priority sites have been identified in Eastern Region, and work is currently proceeding to determine appropriate protection mechanisms: Alfred Bog, Brockville Long Swamp Fen, Burnt Lands Alvar, Camden East Alvar, Cody Creek Black Maple Forest, Constance Bay Sand Hills, Fish Lake Wetlands, Green Creek Valley, Lemieux Landslide, Manion Corners Long Swamp Bog, Marble Lake Stomatolites, Mer Bleue Bog, Moira Karst, Mt. Fitzsimmons — Landon Bay, Ore Chimney Mine Property, Pointe Fortune Pit, Richmond Fen, Salmon River Alvar, Stoco Fen.

FIGURE 18 EXISTING PARKS AND PROPOSED CANDIDATE PARKS



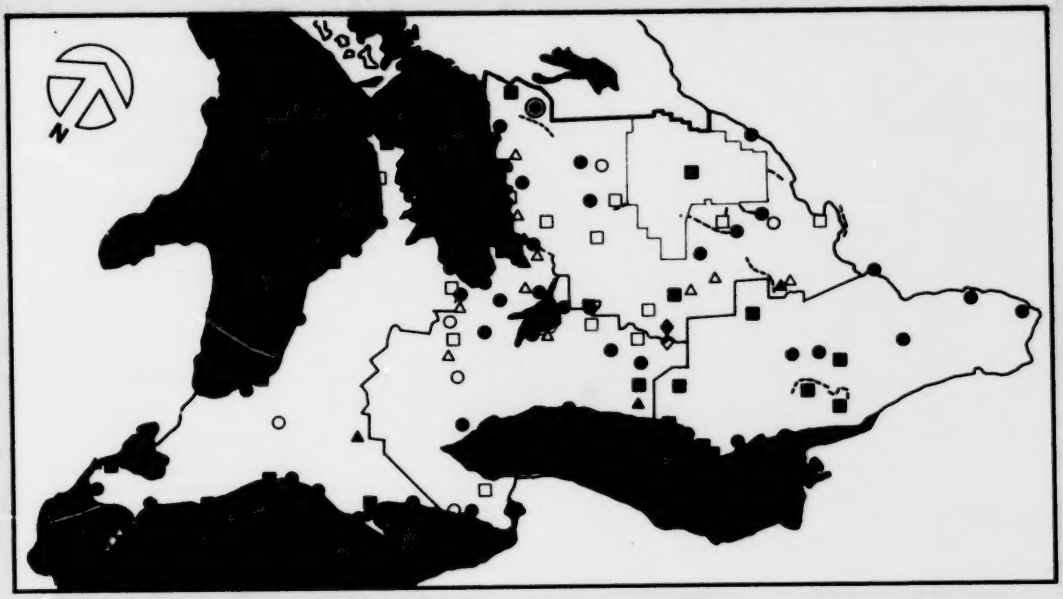


FIGURE 19 SITE REGIONS AND SITE DISTRICTS OF SOUTHERN ONTARIO

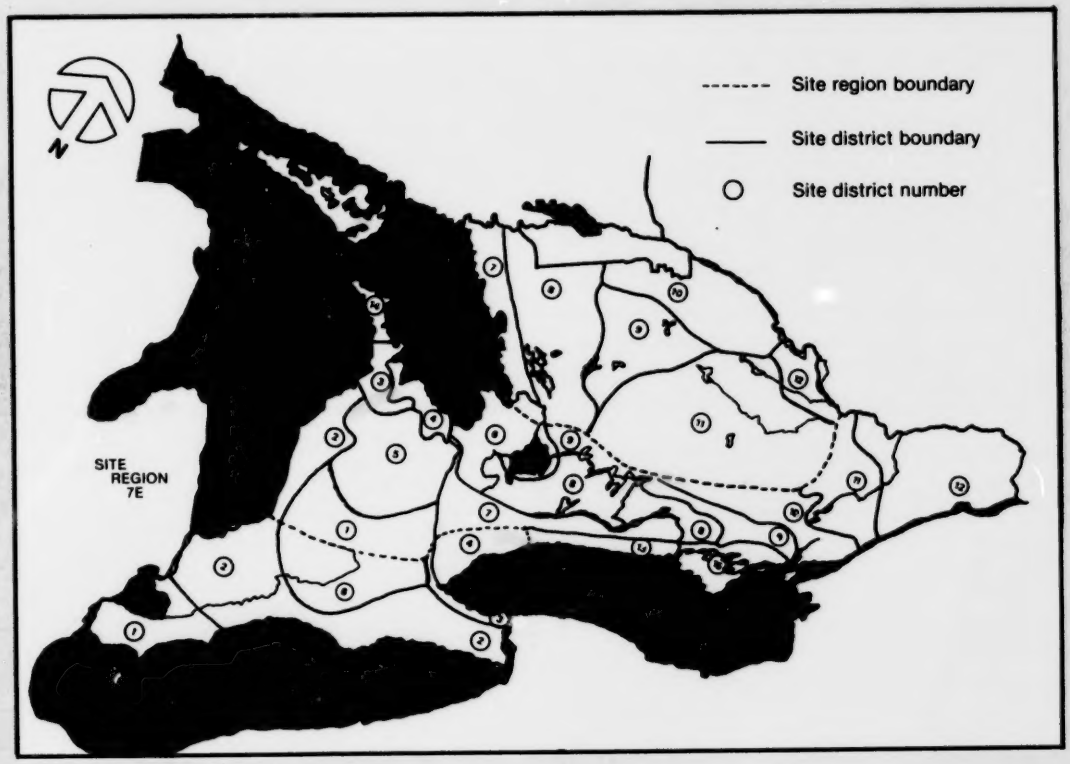


FIGURE 20 ACHIEVEMENT OF REPRESENTATION STANDARDS FOR PARK CLASSES

Park Class	Park Representation Standard	Potential Achievement of Representation Standard
Historical	- represent each theme segment of Ontario's human history.	- under investigation. Some representation known in existing parks and proposed candidates. - significant representation will take place through other public agencies and private land arrangements.

Natural Environment	- 1 natural environment park per site district.	- potential representation of 19 of 26 site districts.
		- in the remaining 7 site districts:
		  - candidates being sought in 3 site districts (6E-1, 6E-5 and 7E-6).
		  - in 2 site districts (6E-11 and 6E-12) recreation and protection targets can be met in other classes of park.
		  - in 2 site districts (6E-13 and 7E-4) there is no potential for representation.

Nature Reserve	- represent each of the past environments of Ontario through its earth science features and through the vegetative site types found in each site region.	- under investigation. - significant representation will take place through other public agencies and private land arrangements.
Recreation	- 1 waterway park per site district.	- there is no representation standard for recreation parks. These parks are required to achieve the recreation opportunities targets that can only partially be met in the other park classes.
Waterway		- potential representation of 7 site districts within provincial parks. - other agencies may contribute to representation of remaining 19 site districts.
Wilderness	- 1 wilderness park and 1 wilderness zone in another class of park in each of the 3 site regions in southern Ontario.	- 1 proposed candidate wilderness park in site region 5E. - potential for 4 wilderness zones in site region 5E. - there is limited potential in site region 6E which is under investigation by provincial and federal agencies. - there is no potential in site region 7E.

G: general recreation

The ministry's recreation management efforts are directed primarily to hunting, fishing and provincial parks. There are a number of other activities which the ministry carries out for which no objectives have been developed. Tentative objectives for this other recreation might be:

- **to provide and to encourage a wide variety of outdoor recreation opportunities ranging from day use to back-country experiences;**
- **to identify, select and protect provincially significant natural and cultural resources; and**
- **to provide an economic contribution through tourism.**

The ministry will:

- **participate in efforts to improve the co-ordination of assistance programs. To this end, the ministry will co-operate with and provide assistance to conservation authorities, municipalities and private organizations in acquiring, planning and developing recreation areas and facilities;**
- **permit recreational use of Crown land with minimum restrictions considering other resource uses and the environment;**
- **encourage the private sector to provide a base for recreational activities on Crown land;**
- **manage and encourage the development of canoe routes and trail systems and access on both public and private land; and**
- **identify provincially rare and endangered species of native plants and take appropriate action for their protection.**

Two plants, the small white lady's slipper and the small whorled pogonia, have been designated under the *Endangered Species Act.*

Several major recreational corridors exist in southern Ontario: the Rideau-Trent-Severn System, the Niagara Escarpment and the Georgian Bay shoreline from the Severn River to the French River.

Total recreation use in southern Ontario for the activities of boating, picnicking, cross-country skiing, snowmobiling, swimming and hiking was about 160 million occasions in 1974.

About 10 percent of this recreation occurred in provincial parks and an additional 6 percent occurred on Crown Land.

The ministry recognizes the need for the development of a comprehensive outdoor recreation policy that integrates all program elements of all agencies.

Generally recreation facilities developed on Crown land by the ministry will provide only basic conveniences to users.

H: land administration

The objective is to facilitate the orderly development and conservation of Ontario's land and water resources.

Specific land administration targets have not been developed.

The ministry will:

- **maintain the Crown's proprietary interest in land;**
- **develop and maintain access roads essential to resource development and use on Crown land;**
- **dispose of Crown land considering the availability of suitable private land, the potential competition with the sale of private land, and potential impact on adjacent use; and**
- **develop and maintain a geographic referencing system to contribute to orderly development on all lands.**

The ministry has a custodianship responsibility for Crown land. This is carried out in a variety of ways including: asserting the Crown's proprietary interest concerning illegal occupation of Crown land and maintaining up-to-date records of land grants.

The Crown's position on land claims, such as those by native peoples, will be clarified.

Access roads will be provided and maintained consistent with approved land use plans, resource management plans, work plans, and approved operating guidelines.

Crown land in southern Ontario is not presently available for cottage development. A large amount of private land is available and suitable for this type of development.

The geographical referencing system for the province will include standards, the production of Ontario Basic Maps, and surveys.

VI IMPLEMENTATION

The *Co-ordinated Program Strategy* is intended to direct the Ministry of Natural Resources' programs in the future. All district land use strategies and land using activities of the ministry in southern Ontario will conform to this *Strategy*.

One of the most important mechanisms for implementation is the preparation of local land use strategies which interpret the policies for southern Ontario contained in this report into objectives and targets for each administrative district, and which identify more specifically where and in what manner the ministry plans to use or influence the use of land and water. The district strategies in turn will guide the preparation of detailed resource management plans which identify how the objectives and targets will be met in specific areas.

Other ministry activities which will contribute to implementation are education and research. The ministry will seek to provide a comprehensive public education and information program dealing with the management and use of natural resources. The ministry will direct its research efforts so as to increase knowledge of southern Ontario resources and to solve management related problems. There will also be an emphasis on practical research designed to improve management.

If these internal actions were the sole means of implementation, then the strategy would almost certainly fail. The ministry recognizes that private landowners, other government agencies, municipalities, conservation authorities and interest groups are key partners in any efforts to achieve effective and co-ordinated resource management.

PRIVATE LANDOWNERS

The ministry in southern Ontario must rely primarily on private land to achieve targets. Three administrative regions have 90 percent or more private land (excluding water). Only one region, Algonquin, has less than 90 percent private land.

As resource demands increase, there will be a need for a greater emphasis on assisting private landowners in the management of resources. There are some useful models in this area, e.g., the *Woodlands Improvement Act*, but such mechanisms will need to be improved and expanded. As an example, the protection of natural areas of provincial significance will require the development of innovative agreements which will encourage landowners to participate in a protection program.

As a part of the emphasis on private lands, the ministry must ensure that landowners can easily and effectively obtain information on how they can contribute to resource management.

OTHER GOVERNMENT AGENCIES

The implementation of many of the strategies outlined will require co-ordination with other provincial and federal agencies, since there are many situations where the objectives of different agencies can be either competing or complementary.

As important as co-ordinated policy development is the development of good working relationships at the field office levels to ensure that co-ordinated policies are actually implemented.

The ministry expects to work closely with a number of special agencies such as the Canada-Ontario Rideau-Trent-Severn Secretariat, the Niagara Escarpment Commission and the St. Clair, Niagara and St. Lawrence Parks Commissions. Although in some cases these other agencies will assist the ministry in the implementation of the strategy, there will also be instances where the ministry will be assigned a role in implementing the plans of other agencies, and this may necessitate modifying some elements of the *Strategy* or adjusting priorities.

MUNICIPALITIES

An underlying theme throughout the *Strategy* is that the ministry will continue to work with

municipalities to ensure that resource values are considered in official plans and other local planning programs. In particular, strong efforts will be made to ensure that those areas critical to the achievement of ministry targets are protected from incompatible land uses.

Co-operation between the ministry and municipalities will not be limited to ensuring specific municipal actions. The ministry will generally adhere to local planning controls as outlined in the official plan and zoning by-laws.

Additionally the ministry will prepare and implement provincial policy statements as defined in proposed revisions to the *Planning Act*.

CONSERVATION AUTHORITIES

A prerequisite for successful implementation of the strategy is careful co-ordination of both planning and program delivery with the conservation authorities. This will involve continuing negotiations as to how targets might be shared and to ensure the complementarity of district land use strategies and authority watershed plans.

SPECIAL INTEREST GROUPS

There is very significant potential for other groups to assist the ministry in implementation of the *Strategy*. Four current examples of such co-operation are the Ontario Trapper's Association's role in providing trapper education, the Ontario Federation of Anglers and Hunters' role in hunter safety training, the Nature Conservancy of Canada's role in assisting in the acquisition of land and Ducks Unlimited role in wildlife and water management.

VII AMENDMENT PROCEDURES

The *Co-ordinated Program Strategy* will be reviewed by the ministry every five years. In addition, it may be reviewed in response to specific new provincial land use policies, major development proposals and new information compiled during preparation of district land use strategies. Also, the public may request a review of the *Strategy*.

Prior to making any major amendment to the policies contained in this strategy, the ministry will seek public comment to determine the suitability of the proposed amendment. Any comments related to the *Strategy* should be directed to the Assistant Deputy Minister of Southern Ontario.

APPENDIX A

ACHIEVEMENT OF PROVINCIAL PARK TARGETS AND CLASS STANDARDS IN EXISTING PARKS AND PROPOSED CANDIDATE PARKS

APPENDIX A-1 EARTH SCIENCE REPRESENTATION[2]

Admin. Region	Existing Park or Zone				Proposed Candidate Park or Zone			Other sites identified on public and private land (candidates for protection through parks, zones or special arrangements)
	Existing Nature Reserve	Existing Nature Reserve Zones	Proposed Nature Reserve Zones	Features in Parks (outside Nature Reserve Zones)	Proposed Candidate Nature Reserve Park	Proposed Candidate Nature Reserve Zone	Features in Proposed Candidate Parks (No proposed designation)	
Algonquin	Limestone Island[1] Matawatchan	Algonquin Arrowhead Killbear Mikisew Silent Lake	Algonquin	Algonquin Arrowhead Bonnechere Driftwood Grundy Killbear Lake St. Peter Oastler Lake Petroglyphs Silent Lake Sturgeon Bay	Centennial Lake Egan Chute O'Donnell Point Round Lake	Foy Property Lower Madawaska River Westmeath	Bell Bay Bigwind Lake Blackstone Harbour Bonnechere River Brown/Wilson Chetwynd East River Hardy Lake Foy Property Kawartha Highlands Lower Madawaska River McKenzie Lake Magnetawan River Opeongo River Ottawa River Oxtongue River/ Ragged Falls Petawawa/Barron River Upper Madawaska River Westmeath	25
Central	Waubaushene	Charleston Lake Sandbanks (2)[1]	Wasaga Beach	Awenda Wasaga Beach	Scott's Falls	Mono Cliffs Giant's Tomb Credit Forks Boyne Valley	Short Hills	102
Eastern			Frontenac (3) Murphy's Point North Beach Presqu'ile (2)	Bon Echo Carillon Charleston Lake Ferris Fitzroy Frontenac Lake on the Mountain Murphy's Point Presqu'ille Rideau River Sandbanks Sharbot Lake South Nation	Timber Island			87
Southwestern		Pinery (2)	Rondeau Ipperwash Fathom Five		Fish Point	Komoka		88

Notes 1 The numbers in brackets indicate the actual number of nature reserve zones.

2 The existing parks, proposed candidate parks and other sites listed in this table provide representation of 85 percent of the earth science features thought to exist in southern Ontario. The remaining 15 percent require further study.

APPENDIX A-2 LIFE SCIENCE REPRESENTATION

Admin. Region	Existing Park or Zone				Proposed Candidate Park or Zone			Other sites identified on public and private land (candidates for protection through parks, zones or special arrangements)
	Existing Nature Reserve	Existing Nature Reserve Zones	Proposed Nature Reserve Zones	Features in Parks (Outside Nature Reserve Zones)	Proposed Candidate Nature Reserve Park	Proposed Candidate Nature Reserve Zone	Features in Proposed Candidate Parks (No proposed designation)	
Algonquin	Limestone Island Matawatchan	Algonquin (69)[1] Arrowhead (6) Killbear (7) Mikisew Silent Lake (2) Sturgeon Bay (2)	Algonquin (2) Bonnechere Grundy (7) Petroglyphs (4)	Driftwood (2)	Centennial Lake Egan Chute Lowrie Lakes O'Donnell Point Round Lake	Bell Bay Bonnechere River Blackstone Harbour Chetwynd Dividing Lake Hardy Lake Oxtongue River/ Ragged Falls Lower Madawaska River Westmeath (2)	Bauer Bigwind Brown/Wilson East River Foy Property Kawartha Highlands Magnetewan River McKenzie Lake Opeongo River Ottawa River Petawawa/Barron Upper Madawaska River	10
Central	Peter's Woods Gibson River		Wasaga Beach Awenda Bronte Creek		Lavender Falls Duclos Point Scott's Falls Matchedash	Giant's Tomb Island Mono Cliffs Boyne Valley Harris Island[2] Short Hills (2)		89
Eastern		Charleston Lake Sandbanks (2)	Bon Echo Frontenac (10) Murphy's Point (2) Presqu'ile (2)	Bon Echo Carillon Charleston Lake Frontenac Murphy's Point Presqu'ile Sandbanks Sharbot Lake	Timber Island		Otter Lake to Charleston Lake Waterway	55
Southwestern	East Sister Island Ojibway Prairie Trillium Woods	Cyprus Lake Ipperwash Pinery (3) Long Point Turkey Point	Rondeau Wheatley		Fish Point Lighthouse Point	Komoka		90

Notes 1 The numbers in brackets indicate the actual number of nature reserve zones.

2 Harris Island Park Reserve is planned to be incorporated into Serpent Mounds Provincial Park.

3 The existing parks, proposed candidate parks and other sites listed in this table provide representation of 80 percent of the life science resources thought to exist in southern Ontario. The remaining 20 percent require further study.

APPENDIX A-3 HISTORICAL RESOURCES

Admin. Region	Existing Park or Zone				Proposed Candidate Park or Zone			Other sites identified on public and private land (protected by other agencies or new candidates for protection)
	Existing Historical Park	Existing Historical Zones	Proposed Historical Zones	Features in Parks (Outside Historical Zones)	Proposed Candidate Historical Park	Proposed Candidate Historical Zone	Features in Proposed Candidate Parks (No proposed designation)	
Algonquin	Petroglyphs	Algonquin Arrowhead Killbear	Algonquin	Algonquin Arrowhead Bonnechere Grundy Killbear Limestone Island Silent Lake	Quackenbush Serpent Mounds (re-classified)	Lower Madawaska River	Bigwind Blackstone Harbour Bonnechere River Centennial Lake Chetwynd Foy Property Hardy Lake Lower Madawaska River McKenzie Lake Magnetawan River Opeongo Oxtongue River/ Ragged Falls Petawawa/Barron	Under Study
Central			Awenda Wasaga Sibbald Point Bronte Creek	Springwater			Short Hills	Under Study
Eastern		Charleston Lake Frontenac (9)[1] Sandbanks	Bon Echo (4) Murphy's Point	Bon Echo Carillon Charleston Lake Ferris Fitzroy Lake on the Mountain Murphy's Point Presqu'ile Rideau River Sandbanks Sharbot Lake			Otter Lake to Charleston Lake Waterway	11
Southwestern		Pinery Point Farms Turkey Point	Rondeau	Craighleith Fathom Five Iverhuron Iroquois Beach John E. Pearce Long Point Sauble Falls			Black Creek Komoka Pretty River Valley	18

Notes 1 The numbers in brackets indicate the actual number of historical zones.

2 The existing parks, proposed candidate parks and other sites listed in this table provide representation of 57 percent of the historical resources thought to exist in southern Ontario. The remaining 43 percent require further study.

APPENDIX A-4 WILDERNESS, WATERWAY AND NATURAL ENVIRONMENT CLASS PARKS IN SOUTHERN ONTARIO

Site District	Wilderness		Waterway		Natural Environment	
	Existing Parks	Proposed Candidate Parks	Existing Parks	Proposed Candidate Parks	Existing Parks	Proposed Candidate Parks
5-7		Brown-Wilson		Magnetawan	Killbear Grundy Lake	Blackstone Harbour[1] Hardy Lake[1]
5-8		Brown-Wilson		East River	Arrowhead[2]	Hardy Lake[1] Bauer Bigwind
5-9	(Algonquin)[4]		(Algonquin)[4]	Upper Madawaska River Opeongo River Oxtongue River	Algonquin	
5-10				Bonnechere River Petawawa/Barron River	Algonquin	
5-11				Lower Madawaska	Bon Echo[3] Silent Lake Algonquin	Kawartha Highlands Bell Bay
5-12				Ottawa River (Chenal du Rocher Fendu)		Westmeath
6-1						
6-2					MacGregor Point[6] Inverhuron	
6-3						Black Creek
6-4						Pretty River Valley
6-5						
6-6					Awenda	Giant's Tomb
6-7						Mono Cliffs
6-8					Ferris Serpent Mounds[7]	
6-9						Wolf Island[8] Indian Point[8]
6-10				Otter Lake to Charleston Lake	CharlestonLake Frontenac Murphy's Point	
6-11						
6-12						
6-13						
6-14					Cyprus Lake Fathom Five	
6-15					Presqu'ile Sandbanks[9]	
7-1					Rondeau Peche Island	
7-2					Pinery John E. Pearce Turkey Point	

APPENDIX A-4 WILDERNESS, WATERWAY AND NATURAL ENVIRONMENT CLASS PARKS IN SOUTHERN ONTARIO (continued)

Site District	Wilderness		Waterway		Natural Environment	
	Existing Parks	Proposed Candidate Parks	Existing Parks	Proposed Candidate Parks	Existing Parks	Proposed Candidate Parks
7-3						Short Hills
7-4						
Site district 7-5 has been renumbered site district 6-13						
7-6						
TOTALS	0	1	0	10	23	14

Notes 1 Blackstone Harbour will contain a wilderness zone.
2 Arrowhead is to be reclassified from recreation to natural environment.
3 Hardy Lake will represent part of a waterway.
4 Algonquin Park contains wilderness zones and represents a number of waterways.
5 A proposed boundary extension will add a wilderness zone to Bon Echo.
6 MacGregor Point is to be reclassified from recreation class to natural environment class.
7 Serpent Mounds is to be reclassified from natural environment class to historical class.
8 Wolf Island and Indian Point - There is some uncertainty about the most suitable classification of these sites. This will be resolved during master planning.
9 Outlet Beach is to become part of Sandbanks.

APPENDIX A-5 RECREATION CLASS PARKS

Administrative Region	Existing Parks	Proposed Candidate Parks
Algonquin	Arrowhead Bonnechere Carson Lake Driftwood Lake St. Peter Mikisew Oastler Lake Sturgeon Bay	Chetwynd
Central	Balsam Lake Bass Lake Bronte Creek Darlington Devil's Glen Earl Rowe Emily Mara Mark S. Burnham McRae Point Rock Point Sibbald Point Six Mile Lake Springwater Wasaga Beach	Boyne Valley Credit Forks James N. Allan
Eastern	Carillon Fitzroy Lake on the Mountain North Beach Rideau River Sharbot Lake Silver Lake South Nation	
Southwestern	Craigleith Holiday Beach Ipperwash Iroquois Beach Long Point MacGregor Point Peche Island Point Farms Port Bruce Sauble Falls Selkirk Wheatley	Komoka

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GLOSSARY

Candidate Park
An area designated by Ministry of Natural Resources land use plans and strategies which may be given official status as a park at some time in the future.

Crown Land/Public Land
All land (including land under water) held by the province: both land which has never been sold and land which has been re-acquired. In this report, public land and Crown land are used synonymously.

Goal
A general purpose to which the ministry aspires.

Interim Use
Land and resource use and management practices which are permitted to occur over a period of time prior to the initiation of another identified use.

Objective
A quantifiable end result to be achieved.

Occasion
A measure of recreational use describing the number of times a recreation resource or facility is used by individuals in a given time period. An occasion is considered not to exceed one day in duration.

Opportunity
A measure of recreation supply describing the number of times a recreation resource or facility can be used (occasions of use) in a given time period. An opportunity is considered not to be greater than one day.

Policy
A decision concerning the objectives to be achieved.

Proposed Candidate Park
An area having park potential which has been identified for public review and feasibility analysis through the Ministry's land use planning process.

Site Region
An area of land within which the response of vegetation to the features of landform follows a consistent pattern. Three of Ontario's 13 site regions are found in southern Ontario (Figure 19).

Site District
A fairly large subdivision of a site region set apart from other areas because of a characteristic pattern of landform features. There are 26 site districts in southern Ontario (Figure 19).

Site Type
A lower order subdivision of a site region based on the interaction of microclimate, substrate and moisture regime. A characteristic association of plant species will develop on an individual site type within a specific site region. The number of site types also varies from site region to site region.

Historical Theme
A distinct activity in the history of Ontario with a specific time span and geographical area, and which is related to the out-of-doors. Fourteen themes have been identified for representation in Ontario.

Geological Environment
A discrete period of time characterized by distinctive geological and geomorphological processes, climate conditions and plant and animal life or its absence which is represented by identifiable features on or below the earth's surface. Forty-two ancient and recent environments have been identified in Ontario to date.

Strategy
A planned action or measure to achieve a desired end.

Target
A quantified end to be achieved or completed by a specific date.

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